



## Identifying gene expression modules that define human cell fates.

Journal: Stem Cell Res

Publication Year: 2016

Authors: I Germanguz, J Listgarten, J Cinkornpumin, A Solomon, X Gaeta, W E Lowry

PubMed link: 27108395

Funding Grants: CSUN-UCLA Bridges to Stem Cell Research

## **Public Summary:**

Using a compendium of cell-state-specific gene expression data, we identified genes that uniquely define cell states, including those thought to represent various developmental stages. Our analysis sheds light on human cell fate through the identification of core genes that are altered over several developmental milestones, and across regional specification. Here we present cell-type specific gene expression data for 17 distinct cell states and demonstrate that these modules of genes can in fact define cell fate. Lastly, we introduce a web-based database to disseminate the results.

## **Scientific Abstract:**

Using a compendium of cell-state-specific gene expression data, we identified genes that uniquely define cell states, including those thought to represent various developmental stages. Our analysis sheds light on human cell fate through the identification of core genes that are altered over several developmental milestones, and across regional specification. Here we present cell-type specific gene expression data for 17 distinct cell states and demonstrate that these modules of genes can in fact define cell fate. Lastly, we introduce a web-based database to disseminate the results.

 $\textbf{Source URL:} \ https://www.cirm.ca.gov/about-cirm/publications/identifying-gene-expression-modules-define-human-cell-fates$ 

1